SEQUENCE LISTING

<110> Medical Research Council

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<120> Intracellular antibodies

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<140> Continuation of PCT/GB02/03512
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<160> 124

<170> PatentIn version 3.1

<210> 1

<211> 110

<212> PRT

<213> Artificial sequence

<220>

<223> Consensus

<400> 1

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Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1               5                   10                  15


Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20                  25                  30


Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
            35                  40                  45


Ser Val Ile Ser Gly Lys Thr Asp Ser Thr Tyr Tyr Ala Asp Ser Val
        50                  55                  60


Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65                  70                  75                  80


Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
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2

Ala Arg Gly Arg Gly Ser Leu Ser Tyr Tyr Tyr Tyr Tyr Pro
            100   105   110

<210>   2

<211>   101

<212>   PRT

<213>   Artificial sequence

<220>

<223>   Consensus

<400>   2

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1   5   10   15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Leu Val Ser Ile
            20   25   30

Ser Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys
        35   40   45

Leu Leu Ile Tyr Ala Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg
    50   55   60

Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser
65   70   75   80

Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser
            85   90   95

Leu Pro Gln Trp Thr
            100

<210>   3

<211>   112

<212>   PRT

<213>   Artificial sequence

<220>

<223> Consensus

<400> 3

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Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1               5               10              15


Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20              25              30


Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35              40              45


Ser Val Ile Ser Gly Asp Gly Ser Asn Thr Tyr Tyr Ala Asp Ser Val
    50              55              60


Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65              70              75              80


Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
            85              90              95


Ala Arg Gly Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
            100             105             110
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<210> 4

<211> 108

<212> PRT

<213> Artificial sequence

<220>

<223> Consensus

<400> 4

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Asp Ile Val Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1               5               10              15


Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Tyr Tyr
```

4

```
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Tyr Ser Thr Pro Arg
            85                  90                  95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<210>  5

<211>  123

<212>  PRT

<213>  Homo sapiens


<400>  5

Gln Val Gln Leu Gln Glu Ser Gly Gly Gly Val Val Gln Pro Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Ser Cys Glu Ala Ser Gly Phe Thr Phe Ser Thr Tyr
        20                  25                  30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45

Ala Val Ile Ser Tyr Asp Gly Ser Asp Lys Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
            85                  90                  95
```

Ala Arg Asp Arg Trp His Tyr Gly Ser Gly Ser Pro Ser Met Asp Tyr
        100   105   110

Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 6

<211> 125

<212> PRT

<213> Homo sapiens

<400> 6

Gln Leu Gln Leu Gln Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1   5   10   15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Cys
        20   25   30

Ala Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45

Thr Ser Ile Ser Asn Asp Gly Ser Asn Thr Tyr Tyr Ala Asp Ser Val
    50   55   60

Lys Gly Arg Phe Thr Val Ser Arg Asp Asn Ser Arg Asn Thr Leu Tyr
65   70   75   80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
            85   90   95

Ala Arg Ala Ala Ser Ser Gly Trp Pro Ser Thr Arg Asn Ser Glu Val
        100   105   110

Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120   125

<210> 7

<211> 121

<212> PRT

<213> Homo sapiens

<400> 7

Gln Val Gln Leu Leu Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1   5   10   15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Ser
            20   25   30

Ala Ser His Trp Ala Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
            35   40   45

Ser Ala Ile Ser Gly Ser Gly Ser Asn Thr Tyr Tyr Ala Asp Ser Val
        50   55   60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
            85   90   95

Ala Arg Gly Asp Gly Tyr Ser Tyr Gly Ser Pro Asp Asp Tyr Trp Gly
            100   105   110

Gln Gly Thr Leu Val Thr Val Ser Ser
            115   120

<210> 8

<211> 118

<212> PRT

<213> Homo sapiens

<400> 8

Gln Val Gln Leu Leu Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1   5   10   15

Ser Leu Arg Leu Ser Cys Ser Ala Ser Gly Phe Thr Phe Ser Ser Tyr
        20   25   30

Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Val
        35   40   45

Ser Ala Ile Ser Gly Asn Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
        50   55   60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80

Leu Gln Met Ser Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95

Val Arg Gly Asp Gly Tyr Asn Ser Phe Asp Tyr Trp Gly Gln Gly Thr
                100   105   110

Leu Val Thr Val Ser Ser
        115

<210>   9

<211>   117

<212>   PRT

<213>   Homo sapiens

<400>   9

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1   5   10   15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
        20   25   30

Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45

Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
        50   55   60

8

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95

Ala Arg Gly Asp Gly Tyr Asn Tyr Asp Tyr Trp Gly Gln Gly Thr Leu
            100   105   110

Val Thr Val Ser Ser
        115

<210>   10

<211>   119

<212>   PRT

<213>   Homo sapiens

<400>   10

Gln Val Gln Leu Val Gln Ser Gly Gly Gly Leu Ile Gln Pro Gly Gly
1   5   10   15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Thr Tyr
            20   25   30

Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45

Ser Ala Ile Ser Gly Ser Gly Gly Thr Asp Tyr Ala Asp Ser Val
    50   55   60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Arg Asn Thr Leu Tyr
65   70   75   80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95

Ala Arg Gly Ser Arg Gly Gly Glu Val Val Asp Tyr Trp Gly Gln Gly
            100   105   110

Thr Leu Val Thr Val Ser Ser

9

115

<210> 11

<211> 122

<212> PRT

<213> Homo sapiens

<400> 11

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
1   5   10   15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30

Ser Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
            35   40   45

Ala Asn Ile Lys Gln Asp Gly Ser Glu Thr Tyr Val Ala Asp Ser Val
        50   55   60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95

Ala Arg Gly Ser Tyr Ser Ser Gly Trp Tyr Phe His Ser Asp Tyr Trp
                100   105   110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
            115   120

<210> 12

<211> 120

<212> PRT

<213> Homo sapiens

10

<400> 12

Gln Val Gln Leu Val Glu Ser Gly Gly Val Val Gln Pro Gly Gly
1   5   10   15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30

Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45

Ser Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
        50   55   60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
            85   90   95

Ala Arg Arg Gly Val Arg Arg Glu Lys Phe Glu Asp Tyr Trp Gly Gln
        100   105   110

Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 13

<211> 126

<212> PRT

<213> Homo sapiens

<400> 13

Gln Val Gln Leu Val Glu Ser Gly Gly Ala Leu Val Gln Pro Gly Gly
1   5   10   15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30

Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45

11

Ser Ala Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50   55   60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
            85   90   95

Ala Lys Asp Leu Ala Val Pro Arg Val Arg Gly Val Ile Ile Pro Glu
            100   105   110

Ser Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120   125

<210> 14

<211> 119

<212> PRT

<213> Homo sapiens

<400> 14

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1   5   10   15

Ser Leu Arg Leu Ser Cys Ser Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30

Ser Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
            35   40   45

Ser Ser Ile Ser Ser Ser Ser Ser Tyr Ile Tyr Tyr Ala Asp Ser Val
    50   55   60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
            85   90   95

Ala Arg Glu Gly Pro Asn Trp Ala His Phe Asp Phe Trp Gly Gln Gly
            100   105   110

Thr Leu Val Thr Val Ser Ser
        115

<210>   15

<211>   118

<212>   PRT

<213>   Homo sapiens

<400>   15

Gln Val Gln Leu Gln Glu Ser Gly Gly Gly Leu Ile Gln Pro Gly Gly
1   5   10   15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Val Ser Ser Asn
            20   25   30

Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
            35   40   45

Ser Ile Ile Tyr Ser Gly Gly Ser Thr Thr Tyr Tyr Ala Asp Ser Val
        50   55   60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80

Leu Gln Met Asn Ser Leu Arg Val Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95

Ala Arg Val Arg Ser Ala Ala Glu Leu Asp Tyr Trp Gly Gln Gly Thr
            100   105   110

Leu Val Thr Val Ser Ser
        115

<210>   16

<211>   121

13

<212> PRT

<213> Homo sapiens

<400> 16

Gln Val Gln Leu Gln Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1   5   10   15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30

Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45

Ser Gly Ile Ser Trp Asn Ser Gly Ser Ile Gly Tyr Ala Asp Ser Val
    50   55   60

_____

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Ala Leu Phe
65   70   75   80

Leu Gln Met Asp Ser Leu Arg Ala Glu Asp Thr Ala Val Phe Tyr Cys
                85   90   95

Ala Lys Gly Gly Pro Arg Thr Thr Leu Thr Thr Ala Asp Tyr Trp Gly
            100   105   110

Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 17

<211> 118

<212> PRT

<213> Homo sapiens

<400> 17

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Glu Gln Pro Gly Gly
1   5   10   15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr

14

Ala Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45

Ser Ser Ile Gly Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
        50   55   60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr His Cys
                85   90   95

Ala Glu Gly Asn Thr Gln Phe Gln His Asp Tyr Trp Gly Gln Gly Thr
                100   105   110

Leu Val Thr Val Ser Ser
        115

<210>   18

<211>   117

<212>   PRT

<213>   Homo sapiens

<400>   18

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1   5   10   15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
                20   25   30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45

Ser Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
        50   55   60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95

Ala Lys Ala Ser Pro Leu His Phe Asp Tyr Trp Gly Gln Gly Thr Leu
                100   105   110

Val Thr Val Ser Ser
        115

<210>   19

<211>   124

<212>   PRT

<213>   Homo sapiens

<400>   19

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1   5   10   15

Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Phe Thr Phe Asn Asn Tyr
                20   25   30

Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
                35   40   45

Ser Val Ile His Asn Asp Gly Ser Thr Thr Tyr Tyr Ala Asp Ser Val
        50   55   60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95

Ala Arg Gly Ile Leu Glu Ser Gly Gly Ala Val Ala Gly Phe Gly Asp
                100   105   110

Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

16

<210> 20

<211> 121

<212> PRT

<213> Homo sapiens

<400> 20

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1   5   10   15

Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Val Ser Gly Tyr
            20   25   30

Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45

Ala Phe Ile Arg Lys Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
    50   55   60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Phe
65   70   75   80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95

Ala Arg Asn Arg Gly Arg Ser Tyr Ser Met Glu Ser Asp Tyr Trp Gly
            100   105   110

Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 21

<211> 119

<212> PRT

<213> Homo sapiens

<400> 21

17

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1   5   10   15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45

Ala Phe Ile Arg Asn Asp Gly Ser Asn Glu Tyr Tyr Val Asp Ser Val
    50   55   60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
            85   90   95

Ala Arg Gly Arg Arg Ser Trp Tyr Tyr Phe Asp Tyr Trp Gly Gln Gly
            100   105   110

Thr Leu Val Thr Val Ser Ser
        115

<210>   22

<211>   124

<212>   PRT

<213>   Homo sapiens

<400>   22

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Ile Gln Pro Gly Gly
1   5   10   15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Val Ser Ser Asn
            20   25   30

Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45

Ser Ala Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val

18

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys Asn Ser Leu Tyr
65   70   75   80

Leu Gln Met Asn Ser Leu Arg Asp Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95

Ala Arg Asp Leu Thr Tyr Tyr Tyr Gly Ser Gly Ser Ser His Leu Asp
            100   105   110

Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210>   23

<211>   108

<212>   PRT

<213>   Homo sapiens

<400>   23

Gln Ser Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu Gly Gln
1   5   10   15

Thr Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr Tyr Ala
            20   25   30

Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Leu Leu Val Ile Tyr
        35   40   45

Gly Glu Asn Asn Gln Pro Ser Gly Ile Pro Phe Ser Gly Ser Ser Ser
    50   55   60

Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu Asp Glu
65   70   75   80

Ala Asp Tyr Tyr Cys His Ser Arg Asp Ser Ser Gly Thr His Leu Arg
                85   90   95

Val Phe Gly Gln Gly Thr Lys Leu Thr Val Leu Gly
            100   105

19

<210> 24

<211> 108

<212> PRT

<213> Homo sapiens

<400> 24

Ser Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu Gly Gln Thr
1   5   10   15

Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr Tyr Ala Ser
            20   25   30

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Leu Leu Val Ile Tyr Gly
            35   40   45

Lys Asn Ile Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser Thr
        50   55   60

Ser Gly Asn Ser Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu Asp
65   70   75   80

Glu Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Arg Thr Gly Asn His Glu
                85   90   95

Glu Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 25

<211> 108

<212> PRT

<213> Homo sapiens

<400> 25

Asp Ile Val Met Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
1   5   10   15

```
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
            20                  25                  30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
            35                  40                  45

Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80

Glu Asp Phe Ala Ser Tyr Tyr Cys Gln Lys Leu Asn Ser Tyr Pro Leu
            85                  90                  95

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
    .       100             105
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<210> 26

<211> 109

<212> PRT

<213> Homo sapiens

<400> 26

```
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1               5                   10                  15

Asp Thr Val Thr Ile Ala Cys Arg Ala Ser Arg Asp Ile Arg Asn Asp
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
            35                  40                  45

Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
```

Glu Asp Ser Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Ser Tyr Ser Pro
                85   90   95

Trp Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys Arg
            100   105

<210> 27

<211> 115

<212> PRT

<213> Homo sapiens

<400> 27

Asp Ile Val Met Thr Gln Ser Pro Ser Ser Leu Ala Val Ser Leu Gly
1   5   10   15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
            20   25   30

Ser Asn Asn Lys Asn Tyr Leu Ala Asn Trp Tyr Gln Gln Lys Pro Gly
        35   40   45

Gln Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly
    50   55   60

Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu
65   70   75   80

Thr Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln
            85   90   95

Gln Tyr Tyr Ser Thr Pro Arg Thr Phe Gly Gln Gly Thr Lys Val Glu
            100   105   110

Ile Lys Arg
        115

<210> 28

<211> 108

22

<212> PRT

<213> Homo sapiens

<400> 28

Asp Ile Val Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1   5   10   15

Asp Arg Val Thr Ile Ser Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr
            20   25   30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45

Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80

Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Thr Thr Pro Arg
            85   90   95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 29

<211> 109

<212> PRT

<213> Homo sapiens

<400> 29

Glu Ile Val Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1   5   10   15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Ser Tyr
            20   25   30

Leu Ala Trp Tyr Gln Gln Lys Ser Gly Lys Ala Pro Lys Leu Leu Ile

23

Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80

Asp Asp Phe Ala Thr Tyr Phe Cys Gln Gln Tyr Lys Ser Ser Ser Pro
            85   90   95

Trp Thr Ser Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
        100   105

<210> 30

<211> 110

<212> PRT

<213> Homo sapiens

<400> 30

Asn Phe Met Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu Gly Gln
1   5   10   15

Thr Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr Tyr Ala
        20   25   30

Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Thr Val Ile Tyr
        35   40   45

Gly Glu Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser
    50   55   60

Ser Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu
65   70   75   80

Asp Glu Ala Asp Tyr Tyr Cys His Ser Arg Asp Ser Ser Gly Thr His
            85   90   95

Leu Arg Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
        100   105   110

<210> 31

<211> 108

<212> PRT

<213> Homo sapiens

<400> 31

Asn Phe Met Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu Gly Gln
1   5   10   15

Thr Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr Phe Ala
            20   25   30

Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu Leu Ile Tyr
        35   40   45

Gly Lys Asp Lys Arg Pro Ser Trp Thr Pro Asp Arg Phe Ser Val Ser
    50   55   60

Ser Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu
65   70   75   80

Asp Phe Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Ser Ser Val Thr Cys
            85   90   95

Val Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 32

<211> 108

<212> PRT

<213> Homo sapiens

<400> 32

Asp Ile Val Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1   5   10   15

25

Asp Thr Val Thr Ile Thr Cys Arg Ala Ser Arg Ala Ile Ala Lys Tyr
            20   25   30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Pro Leu Ile
            35   40   45

Tyr Gly Ala Ser Thr Leu Gln Asn Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80

Glu Asp Phe Ala Thr Tyr Phe Cys Gln Gln Ala His Ser Phe Pro Pro
            85   90   95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210>   33

<211>   108

<212>   PRT

<213>   Homo sapiens

<400>   33

Glu Ile Val Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1   5   10   15

Asp Arg Val Thr Ile Thr Cys Arg Ser Ser Gln Ser Ile Ser Thr Tyr
            20   25   30

Leu Asn Trp Tyr Gln Glu Lys Pro Gly Lys Ala Pro Lys Leu Leu Val
            35   40   45

Tyr Asp Ala Ser Thr Leu His Arg Gly Ala Pro Ser Arg Phe Ser Gly
    50   55   60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80

26

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Tyr Ser Thr Pro Arg
                85   90   95

Thr Phe Gly Gly Leu Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 34

<211> 111

<212> PRT

<213> Homo sapiens

<400> 34

Asn Phe Met Leu Thr Gln Pro Arg Ser Val Ser Gly Ser Pro Gly Gln
1   5   10   15

Ser Val Thr Ile Ser Cys Thr Gly Thr Ser Arg Asp Val Gly Ala Tyr
            20   25   30

Asn His Val Ser Trp Tyr Gln Gln His Pro Gly Lys Ala Pro Lys Leu
        35   40   45

Leu Ile Tyr Glu Val Ser Lys Arg Pro Ser Gly Val Pro Asp Arg Phe
    50   55   60

Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Val Ser Ser Leu
65   70   75   80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ser Ser Tyr Thr Ser Ser
                85   90   95

Ser Thr Arg Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
            100   105   110

<210> 35

<211> 108

<212> PRT

<213> Homo sapiens

27

<400> 35

Asp Ile Val Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1   5   10   15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Thr Tyr
            20   25   30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45

Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Asn Tyr Ser Thr Pro Arg
            85   90   95

Thr Phe Gly Gln Gly Pro Lys Val Asp Ile Asn Arg
            100   105

<210> 36

<211> 108

<212> PRT

<213> Homo sapiens

<400> 36

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1   5   10   15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr
            20   25   30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45

Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly

28

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80

Glu Asp Phe Thr Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Ser Pro Arg
                 85   90   95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
             100   105

<210>   37

<211>   110

<212>   PRT

<213>   Homo sapiens

<400>   37

Gln Ser Val Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu Gly Gln
1   5   10   15

Thr Val Lys Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr Tyr Ala
             20   25   30

Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Thr Val Ile Tyr
         35   40   45

Gly Glu Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser
     50   55   60

Ser Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu
65   70   75   80

Asp Glu Ala Asp Tyr Tyr Cys His Ser Arg Asp Ser Ser Gly Thr His
                 85   90   95

Leu Arg Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
             100   105   110

<210>   38

29

<211> 108

<212> PRT

<213> Homo sapiens

<400> 38

Asp Ile Val Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1   5   10   15

Asp Arg Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Ser Asn Tyr
            20   25   30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45

Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80

Glu Asp Phe Ala Thr Tyr Phe Cys Gln Gln Thr Asn Ser Ser Pro Arg
            85   90   95

Thr Ser Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 39

<211> 108

<212> PRT

<213> Homo sapiens

<400> 39

Glu Ile Val Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1   5   10   15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Gly Ser Tyr
            20   25   30

30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
        35   40   45

Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
        50   55   60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80

Glu Asp Phe Ala Ala Tyr Tyr Cys Gln Gln Ser Tyr Arg Thr Pro Arg
                85   90   95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210>   40

<211>   108

<212>   PRT

<213>   Homo sapiens

<400>   40

Asp Ile Gln Met Thr Gln Ser Pro Ser Ala Leu Ser Ala Ser Val Gly
1   5   10   15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asn Ile Ala Asn Tyr
            20   25   30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Pro Pro Lys Leu Leu Ile
        35   40   45

Tyr Val Ala Ser Asn Leu Pro Ser Gly Val Pro Ser Arg Phe Ser Gly
        50   55   60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Thr Thr Pro Arg
                85   90   95

31

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 41

<211> 132

<212> PRT

<213> Artificial sequence

<220>

<223> Consensus

<220>

<221> MISC_FEATURE

<222> 5, 6, 9, 11, 13, 16, 30, 31, 33, 35, 39, 51..53, 55
, 58..62
<223> Xaa represents position at which no consensus could be assigned   .

<220>

<221> MISC_FEATURE

<222> 74, 75, 79, 80, 82..84, 88, 89, 97, 99, 101, 104..110, 123, 124

<223> Xaa represents position at which no consensus could be assigned

<220>

<221> MISC_FEATURE

<222> 36, 37, 56, 57, 111..121

<223> Xaa may be present or absent

<400> 41

Gln Val Gln Leu Xaa Xaa Ser Gly Xaa Gly Xaa Val Xaa Pro Gly Xaa
1   5   10   15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Xaa Xaa Tyr
            20   25   30

Xaa Met Xaa Xaa Xaa Trp Xaa Arg Gln Ala Pro Gly Lys Gly Leu Glu

Trp Val Xaa Xaa Xaa Ser Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Tyr Tyr
       50   55   60

Ala Asp Ser Val Lys Gly Arg Phe Thr Xaa Xaa Arg Asp Asn Xaa Xaa
65   70   75   80

Asn Xaa Xaa Xaa Leu Gln Met Xaa Xaa Leu Arg Ala Glu Asp Thr Ala
            85   90   95

Xaa Tyr Xaa Cys Ala Xaa Asp Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
        100   105   110

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Trp Xaa Xaa Gly Thr Leu Val
        115   120   125

Thr Val Ser Ser
    130

<210>   42

<211>   115

<212>   PRT

<213>   Artificial sequence

<220>

<223>   Consensus

<220>

<221>   MISC_FEATURE

<222>   1..4, 6, 9, 10, 12, 13, 15, 17, 19, 22, 24, 25, 27, 34..38, 44
<223>   Xaa represents position at which no consensus could be assigned

<220>

<221>   MISC_FEATURE

<222>   48, 49, 51, 52, 55, 56, 59..61, 66, 68, 76, 82, 83, 85..87
<223>   Xaa represents position at which no consensus could be assigned

<220>

<221> MISC_FEATURE

<222> 89, 91, 93, 95..101, 108..113
<223> Xaa represents position at which no consensus could be assigned

<220>

<221> MISC_FEATURE

<222> 28..33, 102..107

<223> Xaa may be present or absent

<400> 42

Xaa Xaa Xaa Xaa Thr Xaa Ser Pro Xaa Xaa Leu Xaa Xaa Ser Xaa Gly
1   5   10   15

Xaa Arg Xaa Thr Ile Xaa Cys Xaa Xaa Ser Xaa Xaa Xaa Xaa Xaa Xaa
            20   25   30

Xaa Xaa Xaa Xaa Xaa Xaa Leu Ala Trp Tyr Gln Xaa Lys Pro Gly Xaa
        35   40   45

Xaa Pro Xaa Xaa Leu Ile Xaa Xaa Ala Ser Xaa Xaa Xaa Ser Gly Val
    50   55   60

Pro Xaa Arg Xaa Ser Gly Ser Gly Ser Gly Thr Xaa Phe Thr Leu Thr
65   70   75   80

Ile Xaa Xaa Leu Xaa Xaa Xaa Asp Xaa Ala Xaa Tyr Xaa Cys Xaa Xaa
            85   90   95

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
        100   105   110

Xaa Thr Lys
        115

<210> 43

<211> 125

<212> PRT

34

<213> Homo sapiens

<400> 43

Met Ala Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Ala Gln Pro
1   5   10   15

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser
            20   25   30

Ser Tyr Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
        35   40   45

Trp Val Ser Ala Ile Ser Gly Ser Gly Gly Arg Thr Tyr Tyr Ala Asp
    50   55   60

Ser Val Lys Gly Arg Phe Thr Met Ser Arg Asp Asn Ser Lys Asn Thr
65   70   75   80

Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
            85   90   95

Tyr Cys Ala Lys Asn Arg Gly Asp Gly Glu Ala Gln Tyr Trp Tyr Phe
            100   105   110

Asp Leu Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
        115   120   125

<210> 44

<211> 123

<212> PRT

<213> Homo sapiens

<400> 44

Met Ala Gln Val Gln Leu Gln Glu Ser Gly Leu Glu Val Lys Lys Pro
1   5   10   15

Gly Gly Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Ser
            20   25   30

35

Ser Tyr Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu
        35   40   45

Trp Met Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn Tyr Ala Gln
        50   55   60

Lys Phe Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Lys Asn Thr
65   70   75   80

Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr
            85   90   95

Tyr Cys Ala Arg Glu Val Leu Asn Tyr Tyr Tyr Gly Met Phe Val Tyr
            100   105   110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 45

<211> 126

<212> PRT

<213> Homo sapiens

<400> 45

Met Ala Gln Val Gln Leu Gln Glu Ser Gly Gly Asp Ser Val Gln Pro
1   5   10   15

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser
            20   25   30

Ser Tyr Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
        35   40   45

Trp Val Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp
        50   55   60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr
65   70   75   80

36

```
Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
                85                  90                  95

Tyr Cys Ala Lys Pro Tyr Tyr Asp Phe Trp Ser Gly Tyr Trp Thr Tyr
               100              105              110

Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
           115              120              125
```

<210> 46

<211> 120

<212> PRT

<213> Homo sapiens

<400> 46

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Met Ala Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro
1               5               10                  15

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser
               20              25                  30

Ser Tyr Ser Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
           35              40              45

Trp Val Ser Ser Ile Ser Ser Ser Ser Ser Tyr Ile Tyr Tyr Ala Asp
       50              55              60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Ser
65              70              75              80

Leu Tyr Leu Gln Met Asn Ser Leu Arg Asp Glu Asp Thr Ala Val Tyr
                85                  90                  95

Tyr Cys Ala Arg Gly Ala Thr Gly Ala Ala Phe Asp Tyr Trp Gly Gln
               100              105              110

Gly Thr Leu Val Thr Val Ser Ser
           115              120
```

<210> 47

<211> 123

<212> PRT

<213> Homo sapiens

<400> 47

Met Ala Gln Val Gln Leu Gln Glu Ser Gly Gly Gly Leu Val Gln Pro
1   5   10   15

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Leu Thr Phe Ser
            20   25   30

Ser Cys Ala Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu
            35   40   45

Trp Val Ser Ala Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp
        50   55   60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Thr Ser Lys Asn Thr
65   70   75   80

Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr
                85   90   95

Tyr Cys Ala Lys Asp Arg Gly Thr Tyr Tyr Gly Tyr Tyr Phe Asp Leu
            100   105   110

Trp Gly Arg Gly Met Leu Val Thr Val Ser Ser
            115   120

<210> 48

<211> 127

<212> PRT

<213> Homo sapiens

<400> 48

Met Ala Gln Val Gln Leu Leu Gln Ser Arg Gly Gly Val Val Gln Pro

38

Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser
            20   25   30

Ser Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
            35   40   45

Trp Val Ala Val Ile Trp Phe Asp Gly Ser Lys Thr Tyr Tyr Ala Asp
    50   55   60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr
65   70   75   80

Leu Tyr Leu Gln Met Asn Ser Leu Arg Asp Glu Asp Thr Ala Val Tyr
            85   90   95

Tyr Cys Ala Arg Ala Pro Val Pro Ala Ala Asn Tyr Tyr Tyr Tyr Tyr
            100   105   110

Tyr Thr Asp Val Trp Gly Lys Gly Thr Leu Val Thr Val Ser Ser
            115   120   125

<210> 49

<211> 125

<212> PRT

<213> Homo sapiens

<400> 49

Met Ala Gln Val Gln Leu Gln Glu Ser Gly Gly Gly Leu Ile Gln Pro
1   5   10   15

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Val Ser
            20   25   30

Ser Asn Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
            35   40   45

Trp Val Ser Val Ile Tyr Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser
    50   55   60

```
Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Thr Ser Lys Asn Ser Leu
65                  70              75                  80


Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr
                85                  90                  95


Cys Ala Arg Tyr Arg Val Ala Ala Ala Asp Pro Asp Asp Trp Tyr Phe
                100                 105                 110


Asp Leu Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
            115                 120                 125


<210>   50

<211>   124

<212>   PRT

<213>   Homo sapiens



<400>   50

Met Ala Gln Val Gln Leu Leu Gln Ser Gly Gly Gly Val Ala Gln Pro
1                   5                   10                  15


Gly Arg Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Phe Thr Phe Ser
                20                  25                  30


Ser Tyr Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
                35                  40                  45


Trp Val Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp
        50                  55                  60


Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr
65                  70                  75                  80


Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr
                85                  90                  95


Tyr Cys Ala Thr Asn Thr Ile Phe Gly Leu Gly Tyr Gly Met Phe Val
                100                 105                 110
```

Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 51

<211> 125

<212> PRT

<213> Homo sapiens

<400> 51

Met Ala Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro
1   5   10   15

Gly Gly Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Phe Thr Phe Ser
            20   25   30

Ser His Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
        35   40   45

Trp Val Ala Ile Ile Trp His Asp Gly Thr Asn Lys Tyr Phe Ala Asp
    50   55   60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr
65   70   75   80

Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr
            85   90   95

Tyr Cys Ala Lys Asp Ser Val Arg Gly Val Ser Trp Tyr Tyr Gly Val
            100   105   110

Asn Val Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
            115   120   125

<210> 52

<211> 125

<212> PRT

<213> Homo sapiens

<400> 52

Met Ala Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro
1   5   10   15

Gly Gly Ser Leu Arg Val Ser Cys Ala Ala Ser Gly Phe Thr Val Ser
            20   25   30

Asn Cys Val Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu
        35   40   45

Trp Val Ser Thr Ile Gly Ser Asp Asp Ala Ala Thr Tyr Tyr Ala Asp
    50   55   60

Ser Ala Lys Gly Arg Phe Thr Ile Ser Arg Asp Thr Ser Lys Asn Ser
65   70   75   80

Pro Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr
                85   90   95

Tyr Cys Ala Ser Pro Gly Pro Arg Ser Gly Ala Asn Trp Phe Ser Phe
            100   105   110

Asp His Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
            115   120   125

<210> 53

<211> 117

<212> PRT

<213> Homo sapiens

<400> 53

Met Ala Gln Val Gln Leu Leu Gln Ser Arg Gly Gly Val Val Gln Pro
1   5   10   15

Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Pro Gly Phe Thr Phe Ser
            20   25   30

Gly Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu

42

Trp Val Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys His Tyr Ala Asp
    50   55   60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr
65   70   75   80

Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
                85   90   95

Tyr Cys Ala Arg Gly Arg Val Phe Asp Tyr Trp Gly Gln Gly Thr Leu
            100   105   110

Val Thr Val Ser Ser
        115

<210>   54

<211>   121

<212>   PRT

<213>   Homo sapiens

<400>   54

Met Ala Gln Val Gln Leu Gln Glu Ser Gly Gly Asp Val Val Gln Pro
1   5   10   15

Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser
                20   25   30

Ser Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
            35   40   45

Trp Val Ala Val Ile Ser Phe Asn Gly Ile Val Gln Tyr Tyr Ala Asp
    50   55   60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asp Thr
65   70   75   80

Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
                85   90   95

43

Tyr Cys Ala Arg Glu Gly Arg Asp Asp Gln Tyr Phe Gln Tyr Trp Gly
            100   105   110

Gln Gly Thr Leu Val Thr Val Pro Ser
        115   120

<210> 55

<211> 128

<212> PRT

<213> Homo sapiens

<400> 55

Met Ala Gln Val Gln Leu Gln Glu Ser Gly Gly Glu Val Lys Lys Pro
1   5   10   15

Gly Ser Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Ser Phe Ser
            20   25   30

Asn His Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu
            35   40   45

Trp Met Gly Gly Ile Ile Pro Val Phe Gly Val Ile Asn Tyr Gln Lys
        50   55   60

Phe Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Thr Thr Ala
65   70   75   80

Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr
                85   90   95

Cys Ala Arg Arg Ile Tyr Asp Phe Trp Ser Gly Tyr Tyr Glu Glu Leu
            100   105   110

Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

<210> 56

<211> 121

<212> PRT

<213> Homo sapiens

<400> 56

Met Ala Gln Val Gln Leu Gln Glu Ser Gly Gly Gly Val Val Gln Pro
1   5   10   15

Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Met
            20   25   30

Asn Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
        35   40   45

Trp Val Ala Val Ile Trp Ser Asp Arg Asn Asp Lys Tyr Tyr Ala Asp
    50   55   60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr
65   70   75   80

Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Ile Tyr
            85   90   95

Tyr Cys Ala Lys Asp Lys Gln Glu Leu Gly Gly Met Asp Val Trp Gly
            100   105   110

Gln Gly Thr Thr Val Thr Val Ser Ser
            115   120

<210> 57

<211> 122

<212> PRT

<213> Homo sapiens

<400> 57

Met Ala Gln Val Gln Leu Gln Glu Ser Gly Gly Gly Val Val Gln Pro
1   5   10   15

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser
        20   25   30

Ser Tyr Ser Leu Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu
        35   40   45

Trp Val Ser Tyr Ile Ser Ser Tyr Ser Gly Thr Ile Tyr Tyr Ala Asp
    50   55   60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Gln
65   70   75   80

Leu Tyr Leu Gln Ile Asn Ser Leu Arg Asp Glu Asp Thr Ala Val Tyr
            85   90   95

Tyr Cys Ala Lys Ser Ser Gly Ser Pro Pro Arg Tyr Phe Asp Leu Trp
            100   105   110

Gly Arg Gly Thr Leu Val Thr Val Ser Ser
            115   120

<210>   58

<211>   119

<212>   PRT

<213>   Homo sapiens

<400>   58

Met Ala Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Ile Gln Pro
1   5   10   15

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Val Ser
        20   25   30

Ser Asn Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
        35   40   45

Trp Val Ala Val Ile Tyr Ser Gly Gly Asp Thr Tyr Tyr Ala Asp Ser
    50   55   60

Val Lys Gly Arg Phe Thr Ile Ser Ser Asp Asn Ser Lys Asn Thr Leu
65   70   75   80

Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr
                85   90   95

Cys Ala Arg Asp Ser Trp Phe Gly Glu Ile Gly Tyr Trp Gly Gln Gly
            100   105   110

Thr Leu Val Thr Val Ser Ser
        115

<210> 59

<211> 123

<212> PRT

<213> Homo sapiens

<400> 59

Met Ala Gln Val Gln Leu Val Glu Leu Gly Gly Gly Leu Val Gln Ser
1   5   10   15

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Pro Gly Leu Thr Phe Ser
            20   25   30

Ser Tyr Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
        35   40   45

Trp Val Ala Tyr Ile Ser Ser Ser Ser Ser Thr Ile Tyr Tyr Ala Asp
    50   55   60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Ser Ser
65   70   75   80

Leu Tyr Leu Gln Met Thr Gly Leu Arg Ala Glu Asp Thr Ala Ile Tyr
                85   90   95

Tyr Cys Ala Thr Tyr Ile Ala Thr Ser Asp Lys Arg Gly Phe Asp Tyr
            100   105   110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser

47

<210> 60

<211> 117

<212> PRT

<213> Homo sapiens

<400> 60

Met Ala Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Lys Pro
1   5   10   15

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser
            20   25   30

Asp Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
            35   40   45

Trp Val Ala Phe Ile Pro Tyr Asp Gly Ser Lys Glu Tyr Tyr Ala Asp
        50   55   60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Glu Asn Thr
65   70   75   80

Leu Tyr Leu Gln Met Asn Ser Leu Lys Ala Glu Asp Thr Ala Val Tyr
                85   90   95

Tyr Cys Met Lys Asp Gln Ala Arg Gly Ile Trp Gly Gln Gly Thr Leu
            100   105   110

Val Thr Val Ser Ser
        115

<210> 61

<211> 129

<212> PRT

<213> Artificial sequence

<220>

<223> Consensus

<220>

<221> MISC_FEATURE

<222> (59)..(59)

<223> Xaa represents position at which no consensus could be assigned

<220>

<221> MISC_FEATURE

<222> (102)..(104)

<223> Xaa represents position at which no consensus could be assigned

<220>

<221> MISC_FEATURE

<222> (106)..(115)

<223> Xaa represents position at which no consensus could be assigned

<400> 61

Met Ala Gln Val Gln Leu Gln Glu Ser Gly Gly Gly Val Val Gln Pro
1   5   10   15

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser
            20   25   30

Ser Tyr Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
        35   40   45

Trp Val Ala Val Ile Ser Ser Asp Gly Ser Xaa Thr Tyr Tyr Ala Asp
    50   55   60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr
65   70   75   80

Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr

49

Tyr Cys Ala Arg Asp Xaa Xaa Xaa Gly Xaa Xaa Xaa Xaa Xaa Xaa Xaa
     100   105   110

Xaa Xaa Xaa Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser
     115   120   125

Ser

<210> 62

<211> 108

<212> PRT

<213> Homo sapiens

<400> 62

Ser Glu Leu Thr Gln Asp Ala Val Ser Val Ala Leu Gly Gln Thr Val
1   5   10   15

Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr Tyr Ala Ser Trp
     20   25   30

Tyr Gln Gln Lys Pro Gly Gln Ala Pro Leu Leu Val Ile Tyr Gly Glu
     35   40   45

Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser Ser Ser
   50   55   60

Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu Asp Glu
65   70   75   80

Ala Asp Tyr Tyr Cys His Ser Arg Asp Ser Ser Gly Thr His Leu Arg
     85   90   95

Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
     100   105

<210> 63

<211> 108

<212> PRT

<213> Homo sapiens

<400> 63

Asp Ile Val Met Thr Gln Ser Pro Pro Ser Leu Ser Ala Ser Val Gly
1   5   10   15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr
            20   25   30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45

Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80

Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr His Thr Ile Ser Arg
            85   90   95

Thr Phe Gly Pro Gly Thr Lys Leu Glu Ile Lys Arg
            100   105

<210> 64

<211> 109

<212> PRT

<213> Homo sapiens

<400> 64

Asp Val Val Met Thr Lys Ser Pro Gly Thr Leu Ser Leu Ser Leu Gly
1   5   10   15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser
            20   25   30

51

```
Tyr Leu Ala Trp Tyr Gln Gln Lys Arg Gly Gln Ala Pro Arg Leu Leu
        35                  40                  45


Ile Tyr Gly Ala Ser Arg Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
        50                  55                  60


Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln
65                  70                  75                  80


Pro Glu Asp Phe Gly Thr Tyr Tyr Cys Gln Gln Leu Gly Ala Tyr Pro
                85                  90                  95


Leu Thr Phe Gly Gly Gly Thr Lys Leu Asp Ile Lys Arg
            100                 105


<210>   65

<211>   107

<212>   PRT

<213>   Homo sapiens



<400>   65

Asp Ile Val Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1               5                   10                  15


Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gly Ser Ser Ser Tyr Tyr
                20                  25                  30


Leu Ala Trp Tyr Gln Gln Arg Pro Gly Lys Ala Arg Lys Leu Leu Ile
        35                  40                  45


Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
        50                  55                  60


Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80


Asp Asp Phe Ala Thr Tyr Tyr Cys Leu Gln Thr Tyr Asn Gly Trp Thr
                85                  90                  95
```

52

Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg
            100   105

<210> 66

<211> 108

<212> PRT

<213> Homo sapiens

<400> 66

Ser Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu Gly Gln Thr
1   5   10   15

Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr Tyr Ala Ser
            20   25   30

Trp Tyr Gln Gln Lys Arg Gly Gln Ala Pro Lys Leu Val Ile Tyr Gly
        35   40   45

Lys Asn Ile Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser Ser
    50   55   60

Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu Asp
65   70   75   80

Glu Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Ser Ser Gly Asn His Val
                85   90   95

Val Phe Gly Gly Gly Thr Lys Val Thr Val Leu Gly
            100   105

<210> 67

<211> 112

<212> PRT

<213> Homo sapiens

<400> 67

Ser Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln Arg

53

```
1                    5                         10                        15

Val Thr Ile Ser Cys Thr Gly Ser Ser Ser Asn Ile Gly Ala Gly His
            20                  25                  30

Asp Val His Trp Tyr Gln Gln Phe Pro Gly Thr Ala Pro Lys Leu Leu
            35                  40                  45

Ile Phe Arg Thr Thr Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser
            50                  55                  60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu Gln
65                  70                  75                      80

Ala Glu Asp Glu Ala Glu Tyr Tyr Cys Gln Ser Tyr Asp Gly Arg Leu
                85                  90                  95

Ser Gly Ser Trp Arg Phe Gly Gly Gly Thr Lys Val Thr Val Leu Gly
            100                 105                 110
```

<210> 68

<211> 114

<212> PRT

<213> Homo sapiens

<400> 68

```
Glu Ile Val Leu Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1                    5                   10                  15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Leu Leu Tyr Gly
            20                  25                  30

Ser Asn Asn Glu His Phe Leu Ala Trp Tyr Gln Gln Lys Pro Gly Thr
            35                  40                  45

Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
            50                  55                  60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65                  70                  75                      80
```

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
                 85   90   95

Tyr Tyr Thr Ile Pro Phe Thr Phe Gly Pro Gly Thr Arg Val Lys Ile
            100   105   110

Lys Arg

<210> 69

<211> 108

<212> PRT

<213> Homo sapiens

<400> 69

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1   5   10   15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Gly Asn Asp
            20   25   30

Leu Val Trp Cys Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
            35   40   45

Ser Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Gly Phe Pro Gln
            85   90   95

Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg
            100   105

<210> 70

<210> ...

<211> 110

<212> PRT

<213> Homo sapiens

<400> 70

```
Ser Ala Leu Thr Gln Pro Ala Ser Val Ser Gly Ser Pro Gly Gln Ser
1               5                   10                  15


Val Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Val Gly Gly Tyr Asn
                20                  25                  30


Tyr Val Ser Trp Tyr Gln Gln Asp Pro Lys Gln Ala Pro Lys Leu Met
            35                  40                  45


Ile Tyr Glu Val Ser Lys Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
        50                  55                  60


Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Val Ser Gly Leu Gln
65                  70                  75                  80


Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ser Ala Ala Pro Thr Gly Ile
                85                  90                  95


Met Met Thr Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
                100                 105                 110
```

<210> 71

<211> 109

<212> PRT

<213> Homo sapiens

<400> 71

```
Glu Ile Val Leu Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Ile Gly
1               5                   10                  15


Asp Arg Ala Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Trp
                20                  25                  30
```

```
Leu Ala Trp Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu
        35                  40                  45

Ile Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Asp Arg Phe Ser
        50                  55                  60

Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln
65                  70                  75                  80

Pro Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Phe Pro
                85                  90                  95

Thr Thr Phe Gly Gln Gly Thr Lys Leu Asn Ile Lys Arg
                100                 105
```

<210> 72

<211> 114

<212> PRT

<213> Homo sapiens

<400> 72

```
Asp Val Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Glu
1               5                  10                  15

Gln Arg Ala Thr Asn Thr Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
            20                  25                  30

Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
        35                  40                  45

Pro Pro Arg Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
        50                  55                  60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65                  70                  75                  80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Asp Tyr Tyr Cys His Gln
                85                  90                  95
```

57

Tyr Tyr Ser Val Pro Phe Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile
            100   105   110

Lys Arg

<210>   73

<211>   108

<212>   PRT

<213>   Homo sapiens

<400>   73

Ser Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu Gly Gln Thr
1   5   10   15

Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Asn Ser Tyr Ala Asn
            20   25   30

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu Val Ile Tyr Gly
        35   40   45

Glu Asn Ser Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser Gly
    50   55   60

Ser Gly Asn Thr Ala Ser Leu Thr Ile Ser Gly Thr Gln Ala Glu Asp
65   70   75   80

Glu Ala Asp Tyr Tyr Cys Ser Ser Arg Asp Ser Ser Gly Thr His Leu
            85   90   95

Ser Phe Gly Gly Gly Thr Lys Val Thr Val Leu Gly
            100   105

<210>   74

<211>   114

<212>   PRT

<213>   Homo sapiens

58

<400> 74

Glu Ile Val Leu Thr Gln Ser Asp Pro Ser Ala Ser Val Ser Leu Gly
1   5   10   15

Glu Arg Ala Thr Asn Thr Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
            20   25   30

Ser Asn Asn Lys Asn Asn Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
        35   40   45

Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
    50   55   60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65   70   75   80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
                85   90   95

Tyr Tyr Ser Ala Pro Pro Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile
            100   105   110

Lys Arg

<210> 75

<211> 109

<212> PRT

<213> Homo sapiens

<400> 75

Ser Val Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu Gly Gln Thr
1   5   10   15

Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr Tyr Ala Ser
            20   25   30

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Leu Leu Val Ile Tyr Gly

59

```
Glu Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser Ser
    50                  55                  60

Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu Asp
65                  70                  75                  80

Glu Ala Asp Tyr Tyr Cys His Ser Arg Asp Ser Ser Gly Thr His Leu
                85                  90                  95

Arg Val Phe Gly Gly Gly Thr Lys Val Thr Val Leu Gly
            100                 105
```

<210> 76

<211> 107

<212> PRT

<213> Homo sapiens

<400> 76

```
Ser Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu Gly Gln Thr
1               5                   10                  15

Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Thr Tyr Tyr Ala Trp
            20                  25                  30

Tyr Gln Gln Lys Pro Gly Gln Ala Pro Ile Leu Val Ile Tyr Ala Lys
            35                  40                  45

Ser Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser Gly Ser
    50                  55                  60

Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu Asp Glu
65                  70                  75                  80

Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Arg Ser Asn Asn His Leu Leu
                85                  90                  95

Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
            100                 105
```

60

<210> 77

<211> 108

<212> PRT

<213> Homo sapiens

<400> 77

```
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1               5                   10                  15


Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Ser Leu
            20                  25                  30


Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
            35                  40                  45


Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60


Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80


Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Leu Asn Ser Ser Pro Ile
                85                  90                  95


Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg
            100                 105
```

<210> 78

<211> 108

<212> PRT

<213> Homo sapiens

<400> 78

```
Glu Ile Val Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Phe Val Gly
1               5                   10                  15
```

```
Asp Arg Ile Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Tyr Tyr
        20              25              30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35              40              45

Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Ser Phe Ser Gly
    50              55              60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65              70              75              80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Leu Asn Ser Tyr Pro Leu
        85              90              95

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
        100             105
```

<210> 79

<211> 108

<212> PRT

<213> Homo sapiens

<400> 79

```
Ser Glu Leu Thr Gln Asp Pro Ala Val Ser Ala Ser Leu Gly Gln Thr
1           5               10              15

Val Arg Ile Thr Cys Gln Gly Asp Ser Pro Arg Ser Tyr Tyr Ala Ser
        20              25              30

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu Val Ile Tyr Gly
        35              40              45

Asn Ser Asn Arg Pro Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Lys
    50              55              60

Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly Leu Gln Ser Glu Asp
65              70              75              80
```

62

Glu Ala Asp Tyr Gly Cys Ala Ala Trp Asp Asp Ser Leu Asn Gly Pro
                85   90   95

Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
            100   105

<210> 80

<211> 108

<212> PRT

<213> Artificial sequence

<220>

<223> Consensus

<220>

<221> MISC_FEATURE

<222> (96)..(96)

<223> Xaa represents position at which no consensus could be assigned

<400> 80

Asp Ile Val Met Thr Gln Ser Pro Pro Ser Leu Ser Val Ser Leu Gly
1   5   10   15

Gln Arg Val Thr Ile Thr Cys Arg Gly Ser Gln Ser Ile Ser Tyr Tyr
            20   25   30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Lys Leu Leu Ile
            35   40   45

Tyr Ala Ala Ser Thr Arg Pro Ser Gly Val Pro Asp Arg Phe Ser Gly
    50   55   60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Ala
65   70   75   80

Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Gln Tyr Asp Ser Ser Pro Xaa
                85   90   95

63

Thr Phe Gly Gly Gly Thr Lys Leu Thr Ile Lys Arg
            100   105

<210>   81

<211>   117

<212>   PRT

<213>   Homo sapiens

<400>   81

Gln Val Gln Leu Gln Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
1   5   10   15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30

Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
            35   40   45

Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
        50   55   60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95

Ala Arg Asp Phe Ala Gly Ala Ile Ala Tyr Trp Gly Gln Gly Thr Leu
            100   105   110

Val Thr Val Ser Ser
        115

<210>   82

<211>   117

<212>   PRT

<213>   Homo sapiens

64

<400> 82

Gln Val Gln Leu Gln Gln Ser Gly Gly Val Val Gln Pro Gly Arg
1   5   10   15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45

Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
    50   55   60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
            85   90   95

Ala Lys Asp Leu Val Gly Ala Lys Gly Asn Trp Gly Gln Gly Thr Leu
        100   105   110

Val Thr Val Ser Ser
        115

<210> 83

<211> 117

<212> PRT

<213> Homo sapiens

<400> 83

Gln Val Gln Leu Gln Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
1   5   10   15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30

Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val

65

Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
    50   55   60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95

Ala Arg Asp Phe Ala Gly Ala Ile Ala Tyr Trp Gly Gln Gly Thr Leu
                100   105   110

Val Thr Val Ser Ser
        115

<210>   84

<211>   123

<212>   PRT

<213>   Homo sapiens

<400>   84

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
1   5   10   15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30

Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
            35   40   45

Ala Ala Ile Ser Gly Ser Gly Asp Asn Thr Tyr Tyr Ala Asp Ser Val
    50   55   60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Glu Asn Thr Val His
65   70   75   80

Leu Gln Met Ala Gly Leu Arg Ala Glu Asp Thr Ala Leu Tyr Phe Cys
                85   90   95

66

Ala Lys Asp Gly Pro Ala Val Gly Asn Pro Gln Gly Tyr Phe Asp Phe
            100   105   110

Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
            115   120

<210> 85

<211> 117

<212> PRT

<213> Homo sapiens

<400> 85

Gln Val Gln Leu Val Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1   5   10   15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
            35   40   45

Ala Ser Met Ser Tyr Asp Gly Asn Asn Lys Tyr Tyr Ala Asp Ser Val
    50   55   60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95

Ala Arg Asp Leu Arg Gly Ala Leu Asp Tyr Trp Gly Gln Gly Thr Leu
            100   105   110

Val Thr Val Ser Ser
            115

<210> 86

<211> 123

<212> PRT

<213> Homo sapiens

<400> 86

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
1   5   10   15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp Tyr
            20   25   30

Tyr Met Ser Trp Ile Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
            35   40   45

Ser Ser Ile Ser Ser Ser Ser Ser Tyr Ile Tyr Tyr Ala Asp Ser Val
        50   55   60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95

Ala Arg Asp Gly Ile Ala Ala Arg Ser Gly Tyr Tyr Gly Met Asp Val
            100   105   110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
            115   120

<210> 87

<211> 117

<212> PRT

<213> Homo sapiens

<400> 87

Gln Val Gln Leu Gln Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
1   5   10   15

68

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
        20   25   30

Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45

Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
        50   55   60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
            85   90   95

Ala Arg Asp Phe Ala Gly Ala Ile Ala Tyr Trp Gly Gln Gly Thr Leu
            100   105   110

Val Thr Val Ser Ser
        115

<210> 88

<211> 123

<212> PRT

<213> Homo sapiens

<400> 88

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
1   5   10   15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
        20   25   30

Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45

Ala Ala Ile Ser Gly Ser Gly Asp Asn Thr Tyr Tyr Ala Asp Ser Val
        50   55   60

69

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Glu Asn Thr Val His
65   70   75   80

Leu Gln Met Ala Gly Leu Arg Ala Glu Asp Thr Ala Leu Tyr Phe Cys
                85   90   95

Ala Lys Asp Gly Pro Ala Val Gly Asn Pro Gln Gly Tyr Phe Asp Phe
                100   105   110

Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
                115   120

<210>   89

<211>   117

<212>   PRT

<213>   Homo sapiens

<400>   89

Gln Val Gln Leu Val Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1   5   10   15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
                20   25   30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
                35   40   45

Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
        50   55   60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95

Ala Lys Asp Leu Pro Asp Ser Asn Gly Tyr Trp Gly Gln Gly Thr Leu
                100   105   110

Val Thr Val Ser Ser

70

115

<210> 90

<211> 123

<212> PRT

<213> Homo sapiens

<400> 90

```
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
1               5                   10                  15


Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20                  25                  30


Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
            35                  40                  45


Ala Ala Ile Ser Gly Ser Gly Asp Asn Thr Tyr Tyr Ala Asp Ser Val
        50                  55                  60


Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Glu Asn Thr Val His
65                  70                  75                  80


Leu Gln Met Ala Gly Leu Arg Ala Glu Asp Thr Ala Leu Tyr Phe Cys
                85                  90                  95


Ala Lys Asp Gly Pro Ala Val Gly Asn Pro Gln Gly Tyr Phe Asp Phe
                100                 105                 110


Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
            115                 120
```

<210> 91

<211> 117

<212> PRT

<213> Homo sapiens

71

<400> 91

Gln Val Gln Leu Val Gln Ser Gly Gly Val Val His Pro Gly Arg
1   5   10   15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45

Ala Ser Met Ser Tyr Asp Gly Asn Asn Lys Tyr Tyr Ala Asp Ser Val
    50   55   60

Lys Gly Arg Phe Thr Thr Pro Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
            85   90   95

Ala Arg Asp Leu Arg Gly Ala Leu Asp Tyr Trp Gly Gln Gly Thr Leu
            100   105   110

Val Thr Val Ser Ser
        115

<210> 92

<211> 117

<212> PRT

<213> Homo sapiens

<400> 92

Gln Val Gln Leu Gln Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
1   5   10   15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30

Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45

72

Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
    50   55   60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
            85   90   95

Ala Arg Asp Phe Ala Gly Ala Ile Ala Tyr Trp Gly Gln Gly Thr Leu
            100   105   110

Val Thr Val Ser Ser
        115

<210> 93

<211> 117

<212> PRT

<213> Homo sapiens

<400> 93

Gln Val Gln Leu Gln Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1   5   10   15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30

Gly Met His Trp Ala Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45

Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
    50   55   60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
            85   90   95

Ala Lys Asp Leu Val Gly Ala Lys Gly Asn Trp Ala Gln Gly Thr Leu
            100   105   110

Val Thr Val Ser Ser
        115

<210> 94

<211> 117

<212> PRT

<213> Homo sapiens

<400> 94

Gln Val Gln Leu Gln Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1   5   10   15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
            35   40   45

Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
        50   55   60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95

Ala Lys Asp Leu Val Gly Ala Lys Gly Asn Trp Gly Gln Gly Thr Leu
            100   105   110

Val Thr Val Ser Ser
        115

<210> 95

<211> 123

<212> PRT

<213> Homo sapiens

<400> 95

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
1   5   10   15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30

Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
            35   40   45

Ala Ala Ile Ser Gly Ser Gly Asp Asn Thr Tyr Tyr Ala Asp Ser Val
        50   55   60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Glu Asn Thr Val His
65   70   75   80

Leu Gln Met Ala Gly Leu Arg Ala Glu Asp Thr Ala Leu Tyr Phe Cys
                85   90   95

Ala Lys Asp Gly Pro Glu Val Gly Asn Pro Gln Gly Tyr Phe Asp Phe
            100   105   110

Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
            115   120

<210> 96

<211> 117

<212> PRT

<213> Homo sapiens

<400> 96

Gln Val Gln Leu Gln Gln Ser Gly Glu Gly Val Val Gln Pro Gly Arg
1   5   10   15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr

75

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45

Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
        50   55   60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95

Ala Lys Asp Leu Val Gly Ala Lys Gly Asn Trp Gly Gln Gly Thr Leu
            100   105   110

Val Thr Val Ser Ser
        115

<210>   97

<211>   117

<212>   PRT

<213>   Homo sapiens

<400>   97

Gln Val Gln Leu Val Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1   5   10   15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45

Ala Ser Met Ser Tyr Asp Gly Asp Asn Lys Tyr Tyr Ala Asp Ser Val
        50   55   60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80

76

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95

Ala Arg Asp Leu Arg Gly Ala Leu Asp Tyr Trp Gly Gln Gly Thr Leu
            100   105   110

Val Thr Val Ser Ser
        115

<210> 98

<211> 103

<212> PRT

<213> Homo sapiens

<400> 98

Glu Ile Val Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
1   5   10   15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser His Gly Ile Asn Asn Tyr
            20   25   30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
            35   40   45

Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ala Asn Ser Phe Pro Leu
            85   90   95

Thr Phe Gly Gly Gly Thr Lys
            100

<210> 99

77

<211> 103

<212> PRT

<213> Homo sapiens

<400> 99

Glu Ile Val Leu Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
1   5   10   15

Glu Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Trp
                20   25   30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile
            35   40   45

Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80

Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Ser Thr Tyr Leu Trp
                85   90   95

Thr Phe Gly Gln Gly Thr Lys
            100

<210> 100

<211> 103

<212> PRT

<213> Homo sapiens

<400> 100

Glu Ile Val Leu Thr Gln Ser Pro Ser Ile Leu Ser Ala Ser Val Gly
1   5   10   15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser His Gly Ile Asn Asn Tyr
                20   25   30

```
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
        50                  55                  60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ala Asn Ser Phe Pro Trp
                85                  90                  95

Thr Phe Gly Gln Gly Thr Lys
            100


<210>  101

<211>  109

<212>  PRT

<213>  Homo sapiens



<400>  101

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1               5                   10                  15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
            20                  25                  30

Ser Asn Asn Lys Asp Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
        35                  40                  45

Ser Pro Arg Leu Leu Ile Ser Trp Ala Ser Thr Arg Glu Ser Gly Val
        50                  55                  60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65                  70                  75                  80

Ile Asn Arg Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln His
                85                  90                  95
```

79

Tyr Tyr Ser Tyr Pro Leu Thr Phe Gly Gln Gly Thr Lys
            100   105

<210>   102

<211>   103

<212>   PRT

<213>   Homo sapiens

<400>   102

Glu Ile Val Leu Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Ile Gly
1   5   10   15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Asn Tyr
            20   25   30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
            35   40   45

Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Gly Leu Leu Pro
65   70   75   80

Glu Asp Phe Ala Ser Tyr Phe Cys Gln Gln Ala Ser Val Phe Pro Val
            85   90   95

Thr Phe Gly Gly Gly Thr Lys
            100

<210>   103

<211>   105

<212>   PRT

<213>   Homo sapiens

<400>   103

Glu Ile Val Leu Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly

80

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Trp
            20   25   30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
            35   40   45

Tyr Ala Ala Ser Ile Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
            50   55   60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln Asp Ser Asn Pro Tyr Pro
            85   90   95

Leu Leu Thr Phe Gly Gly Gly Thr Lys
            100   105

<210>   104

<211>   102

<212>   PRT

<213>   Homo sapiens

<400>   104

Glu Ile Val Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
1   5   10   15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser His Gly Ile Asn Asn Tyr
            20   25   30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
            35   40   45

Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
            50   55   60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ala Asn Ser Phe Pro Leu
                    85   90   95

Thr Phe Ala Arg Thr Lys
                100

<210> 105

<211> 109

<212> PRT

<213> Homo sapiens

<400> 105

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1   5   10   15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
                20   25   30

Ser Asn Asn Lys Asp Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
            35   40   45

Ser Pro Arg Leu Leu Ile Ser Trp Ala Ser Thr Arg Glu Ser Gly Val
        50   55   60

Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65   70   75   80

Ile Asn Arg Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln His
                85   90   95

Tyr Tyr Ser Tyr Pro Leu Thr Phe Gly Gln Gly Thr Lys
                100   105

<210> 106

<211> 103

<212> PRT

82

<213> Homo sapiens

<400> 106

Asp Val Val Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
1   5   10   15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Glu Asn Ile Asn Arg Trp
            20   25   30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
            35   40   45

Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Cys Ser Gly
        50   55   60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80

Asp Asp Phe Ala Thr Tyr Tyr Cys His Gln Tyr Thr Thr Tyr Leu Trp
                85   90   95

Thr Phe Gly Gln Gly Thr Lys
            100

<210> 107

<211> 109

<212> PRT

<213> Homo sapiens

<400> 107

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1   5   10   15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
            20   25   30

Ser Asn Asn Lys Asp Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
        35   40   45

83

Ser Pro Arg Leu Leu Ile Pro Trp Ala Ser Thr Arg Glu Ser Gly Val
    50   55   60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65   70   75   80

Ile Asn Arg Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln His
                85   90   95

Tyr Tyr Ser Tyr Pro Leu Thr Phe Gly Gln Gly Thr Lys
            100   105

<210> 108

<211> 102

<212> PRT

<213> Homo sapiens

<400> 108

Glu Ile Val Leu Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Ile Gly
1   5   10   15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Asn Tyr
                20   25   30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
            35   40   45

Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Gly Leu Leu Pro
65   70   75   80

Glu Asp Phe Ala Ser Tyr Phe Cys Gln Gln Ala Ser Val Phe Pro Val
                85   90   95

Thr Phe Ala Arg Thr Lys
            100

84

<210> 109

<211> 103

<212> PRT

<213> Homo sapiens

<400> 109

```
Glu Ile Cys Val Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
1               5                   10                  15


Asp Arg Val Thr Ile Thr Cys Arg Ala Ser His Gly Ile Asn Asn Tyr
            20                  25                  30


Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
            35                  40                  45


Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60


Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80


Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ala Asn Ser Phe Pro Leu
                85                  90                  95


Thr Phe Gly Gly Gly Thr Lys
            100
```

<210> 110

<211> 103

<212> PRT

<213> Homo sapiens

<400> 110

```
Glu Ile Val Leu Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
1               5                   10                  15


Glu Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Trp
```

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile
        35   40   45

Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80

Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Ser Thr Tyr Leu Trp
            85   90   95

Thr Phe Gly Gln Gly Thr Lys
            100

<210>   111

<211>   103

<212>   PRT

<213>   Homo sapiens

<400>   111

Glu Ile Val Leu Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
1   5   10   15

Glu Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Trp
            20   25   30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile
        35   40   45

Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Asp Arg Phe Ser Gly
    50   55   60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80

Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Ser Thr Tyr Leu Trp
            85   90   95

Thr Phe Gly Gln Gly Thr Lys
            100

<210>   112

<211>   109

<212>   PRT

<213>   Homo sapiens

<400>   112

Asp Ile Val Met Thr Lys Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1   5   10   15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
            20   25   30

Ser Lys Asn Lys Asp Tyr Leu Ala Trp Tyr Gln Lys Lys Pro Gly Gln
        35   40   45

Ser Pro Arg Leu Leu Ile Ser Trp Ala Ser Thr Arg Glu Ser Gly Val
        50   55   60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65   70   75   80

Ile Asn Arg Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln His
                85   90   95

Tyr Tyr Ser Tyr Pro Leu Thr Phe Gly Gln Gly Thr Lys
            100   105

<210>   113

<211>   103

<212>   PRT

<213>   Homo sapiens

<400>   113

87

```
Glu Ile Val Leu Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
1               5                   10                  15


Glu Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Trp
            20                  25                  30


Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile
            35                  40                  45


Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60


Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80


Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Ser Thr Tyr Leu Trp
            85                  90                  95


Thr Phe Gly Gln Gly Thr Lys
            100


<210>   114

<211>   103

<212>   PRT

<213>   Homo sapiens



<400>   114

Glu Ile Val Leu Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Ile Gly
1               5                   10                  15


Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Asn Tyr
            20                  25                  30


Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
            35                  40                  45


Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
```

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Gly Leu Leu Pro
65   70   75   80

Glu Asp Phe Ala Ser Tyr Phe Cys Leu Gln Ala Ser Val Phe Pro Val
                85   90   95

Thr Phe Gly Gly Gly Thr Lys
            100

<210> 115

<211> 131

<212> PRT

<213> Artificial sequence

<220>

<223> Optimum ICS for human variable chains

<220>

<221> MISC_FEATURE

<222> 5, 6, 11, 13, 16, 23, 30, 31, 33, 35..37, 39, 51..53

<223> Xaa represents position at which no consensus could be assigned

<220>

<221> MISC_FEATURE

<222> 55..57, 59..61, 79, 82, 83, 87, 88, 96, 98, 101, 103..120, 123

<223> Xaa represents position at which no consensus could be assigned

<400> 115

Gln Val Gln Leu Xaa Xaa Ser Gly Gly Gly Xaa Val Xaa Pro Gly Xaa
1   5   10   15

Ser Leu Arg Leu Ser Cys Xaa Ala Ser Gly Phe Thr Phe Xaa Xaa Tyr
                20   25   30

Xaa Met Xaa Xaa Xaa Trp Xaa Arg Gln Ala Pro Gly Lys Gly Leu Glu
            35   40   45

```
Trp Val Xaa Xaa Xaa Ser Xaa Xaa Xaa Gly Xaa Xaa Xaa Tyr Tyr Ala
    50                  55                  60


Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Xaa Asn
65                  70                  75                  80


Thr Xaa Xaa Leu Gln Met Xaa Xaa Leu Arg Ala Glu Asp Thr Ala Xaa
            85                  90                  95


Tyr Xaa Cys Ala Xaa Asp Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
            100             105             110


Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Trp Gly Xaa Gly Thr Leu Val Thr
        115             120             125


Val Ser Ser
    130
```

<210> 116

<211> 130

<212> PRT

<213> Artificial sequence

<220>

<223> Optimum ICS for mouse variable chains

<220>

<221> MISC_FEATURE

<222> 1..18, 20, 23, 24, 26..33, 35..37, 39..42, 44..46, 49..52

<223> Xaa represents position at which no consensus could be assigned

<220>

<221> MISC_FEATURE

<222> 54..74, 76..81, 83, 86, 87, 89, 93, 95, 100, 102..119

<223> Xaa represents position at which no consensus could be assigned

<220>

<221> MISC_FEATURE

<222> 122, 125, 126, 130
<223> Xaa represents position at which no consensus could be assigned

<400> 116

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
1   5   10   15

Xaa Xaa Lys Xaa Ser Cys Xaa Xaa Ser Gly Xaa Xaa Xaa Xaa Xaa Xaa
            20   25   30

Xaa Met Xaa Xaa Xaa Trp Xaa Xaa Xaa Xaa Pro Xaa Xaa Xaa Leu Glu
        35   40   45

Xaa Xaa Xaa Xaa Ile Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
    50   55   60

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp Xaa Xaa Xaa Xaa Xaa
65   70   75   80

Xaa Tyr Xaa Gln Met Xaa Xaa Leu Xaa Ser Glu Asp Xaa Ala Xaa Tyr
            85   90   95

Tyr Cys Ala Xaa Asp Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
            100   105   110

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Trp Gly Xaa Gly Thr Xaa Xaa Thr Val
        115   120   125

Ser Xaa
    130

<210> 117

<211> 130

<212> PRT

<213> Artificial sequence

91

<220>

<223> Optimum ICS extrapolated between man and mouse

<220>

<221> MISC_FEATURE

<222> 1.. 20, 23, 24, 27..33, 35..37, 39..42, 44..46, 49..74

<223> Xaa represents position at which no consensus could be assigned

<220>

<221> MISC_FEATURE

<222> 76..83, 86, 87, 89, 93, 95, 97, 100, 102..119

<223> Xaa represents position at which no consensus could be assigned

<220>

<221> MISC_FEATURE

<222> 122, 125, 126, 130
<223> Xaa represents position at which no consensus could be assigned

<400> 117

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
1   5   10   15

Xaa Xaa Xaa Xaa Ser Cys Xaa Xaa Ser Gly Xaa Xaa Xaa Xaa Xaa Xaa
            20   25   30

Xaa Met Xaa Xaa Xaa Trp Xaa Xaa Xaa Xaa Pro Xaa Xaa Xaa Leu Glu
        35   40   45

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
    50   55   60

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp Xaa Xaa Xaa Xaa Xaa
65   70   75   80

Xaa Xaa Xaa Gln Met Xaa Xaa Leu Xaa Ser Glu Asp Xaa Ala Xaa Tyr
            85   90   95

92

Xaa Cys Ala Xaa Asp Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
        100   105   110

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Trp Gly Xaa Gly Thr Xaa Xaa Thr Val
        115   120   125

Ser Xaa
    130

<210> 118

<211> 115

<212> PRT

<213> Artificial sequence

<220>

<223> Optimum ICS for human variable chains

<220>

<221> MISC_FEATURE

<222> 1..4, 6, 7, 9..15, 17..20, 22, 24..40, 44, 45, 48, 49, 51..53
<223> Xaa represents position at which no consensus could be assigned

<220>

<221> MISC_FEATURE

<222> 55..62, 64..68, 72, 75..78, 82..87, 89, 91, 93, 95..113

<223> Xaa represents position at which no consensus could be assigned

<400> 118

Xaa Xaa Xaa Xaa Thr Xaa Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly
1   5   10   15

Xaa Xaa Xaa Xaa Ile Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
        20   25   30

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Trp Tyr Gln Xaa Xaa Pro Gly Xaa
        35   40   45

```
Xaa Pro Xaa Xaa Xaa Ile Xaa Xaa Xaa Xaa Xaa Xaa Xaa Ser Gly Xaa
     50                  55                  60

Xaa Xaa Xaa Xaa Ser Gly Ser Xaa Ser Gly Xaa Xaa Xaa Xaa Leu Thr
65                  70                  75                  80

Ile Xaa Xaa Xaa Xaa Xaa Xaa Asp Xaa Ala Xaa Tyr Xaa Cys Xaa Xaa
                85                  90                  95

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
                100                 105                 110

Xaa Thr Lys
         115


<210>  119

<211>  115

<212>  PRT

<213>  Artificial sequence


<220>

<223>  Optimum ICS for mouse variable chains

<220>

<221>  MISC_FEATURE

<222>  3..6, 8, 9..15, 17..22, 24, 25, 27..40, 42..62, 64, 66
<223>  Xaa represents position at which no consensus could be assigned

<220>

<221>  MISC_FEATURE

<222>  69, 72, 74..80, 82..87, 89..91, 93, 95..108, 110, 112

<223>  Xaa represents position at which no consensus could be assigned


<400>  119

Asp Ile Xaa Xaa Xaa Gln Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly
1               5                   10                  15
```

```
Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa Ser Xaa Xaa Xaa Xaa Xaa Xaa
          20                  25                  30


Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Trp Xaa Xaa Xaa Xaa Xaa Xaa Xaa
          35                  40                  45


Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Xaa
       50                  55                  60


Pro Xaa Arg Phe Xaa Gly Ser Xaa Ser Xaa Xaa Xaa Xaa Xaa Xaa Xaa
65                  70                  75                  80


Ile Xaa Xaa Xaa Xaa Xaa Xaa Asp Xaa Xaa Xaa Tyr Xaa Cys Xaa Xaa
              85                  90                  95


Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Thr Xaa Gly Xaa
          100                 105                 110


Gly Thr Lys
       115


<210>  120

<211>  115

<212>  PRT

<213>  Artificial sequence



<220>

<223>  Optimum ICS extrapolated between man and mouse


<220>

<221>  MISC_FEATURE

<222>  1.. 7, 9..15, 17..22, 24..40, 42..63
<223>  Xaa represents position at which no consensus could be assigned

<220>

<221>  MISC_FEATURE
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<222> 64..69, 72, 74..80, 82..87, 89..91, 93, 95..113

<223> Xaa represents position at which no consensus could be assigned

<400> 120

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly
1   5   10   15

Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
          20   25   30

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Trp Xaa Xaa Xaa Xaa Xaa Xaa Xaa
          35   40   45

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Xaa
     50   55   60

Xaa Xaa Xaa Xaa Xaa Gly Ser Xaa Ser Xaa Xaa Xaa Xaa Xaa Xaa Xaa
65   70   75   80

Ile Xaa Xaa Xaa Xaa Xaa Xaa Asp Xaa Xaa Xaa Tyr Xaa Cys Xaa Xaa
               85   90   95

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
          100   105   110

Xaa Thr Lys
        115

<210> 121

<211> 27

<212> DNA

<213> Artificial sequence

<220>

<223> Primer

<400> 121
cagggatccg agcgcggcct ggtgaag   27

96

<210> 122

<211> 27

<212> DNA

<213> Artificial sequence

<220>

<223> Primer

<400> 122
caggaattca tcgttgggcc agatctg   27   .

<210> 123

<211> 27

<212> DNA

<213> Artificial sequence

<220>

<223> Primer

<400> 123
cagggatccg aagcccttca gcggcca   27

<210> 124

<211> 27

<212> DNA

<213> Artificial sequence

<220>

<223> Primer

<400> 124
caggaattcc gagatctgag tggccat   27